

REMARKS

Applicant thanks the Examiner for the thorough consideration given the present application.

Claims 1-3, 8 and 9 are now present in this application. Claim 1 is independent. Reconsideration of this application, as amended, is respectfully requested.

Rejection Under 35 U.S.C. § 102 and 35 U.S.C. § 103

Claims 1, 2, 8, and 9 stand rejected under 35 U.S.C. § 103 as being obvious over US 5,556,699 (Niira) in view of JP 2001-178452 (Kanari et al.) and US 2002/0185199 (Myers). Further, Claims 1 and 3 stand rejected under 35 U.S.C. § 103 as being obvious over US 3,010,861 (Reese) in view of Niira and Myers. These rejections are respectfully traversed.

Complete discussions of the Examiner's rejections are set forth in the Office Action, and are not being repeated here.

The combinations proposed by the Examiner in the rejections would not be obvious to one of ordinary skill in the art and do not meet the limitations recited in the claim. First, Niira, Kanari et al. and Myers disclose the use of antibiotic zeolites and the Examiner has set forth no reasoning why the antibiotic would be changed to an oxide of silver ions, as is claimed. The Examiner does not even allege that any of the references disclose the use of an oxide of silver, repeatedly referring only to a silver-based antibiotic. Without any reference disclosing the use of an antibiotic having oxides of silver ions, as is claimed, the rejections must be withdrawn.

The claims recite that the antibiotic substance comprises 60 to 80% by weight of an oxide of Ag ions having diameters of several dozen to hundred nanometers, 10 to 20% by weight of zirconium phosphate, and 10 to 20% by weight of a zinc oxide. In both rejections, the Examiner relies upon Myers for disclosing the claimed composition but the Examiner recognizes that Myers does not disclose the claimed composition, instead asserting that one of ordinary skill would arrive at the claimed composition from Myers' disclosure through routine experimentation. Applicant respectfully disagrees.

Myers discloses the use of an inorganic antibiotic metal mixed into a resin. Paragraph [0078] mentions the use of antibiotic zeolites, not oxides, using metals such as silver, copper or

zinc. The use of silver is limited to zeolites. Paragraph [0092] refers to certain oxides can be added for whitening but silver oxide is not among them. Paragraph [0022] mentions antibacterial substances including oxides of titanium, aluminum, zinc and copper. These paragraphs, relied upon by the Examiner, fail to disclose the use of oxides of silver ions.

The paragraphs cited by the Examiner do not support the Examiner's position. The claimed composition includes oxides of silver ions, zirconium phosphate and zinc oxide. Paragraph [0066] merely lists zirconium phosphate and zinc oxide as one of several substances usable as the inorganic antibacterial particles. Therefore, these substances would be used as the antibacterial particles, which may possibly be used in place of any silver based antibiotic by Niira or Kanari et al. but there is no suggestion of using the three components recited in claim 1 together.

Moreover, the composition recited in the claims can not be considered to be the result of routine experimentation. Paragraphs [0080] and [0081] of Myers disclose the use of a silver zeolite or zinc zeolite. Even under the possibility of using a mixture, the amount of the antibiotic substance is, at most, 25% by weight of the compound, as set forth in paragraphs [0081] and [0082]. There is no basis in Myers to provide a starting point through which one of ordinary skill would arrive at the claimed composition through routine experimentation. The Examiner also states that the presence of zirconium phosphate further enhances the antibiotic properties of the mixture. The Examiner is respectfully requested to provide support in Myers for this statement, as Applicant can not find any such disclosure, as the only disclosure concerning zirconium phosphate is paragraph [0066], discussed above.

The prior art does not disclose a composition as set forth in the claim. Myers discloses several substances, such as zinc oxide and zirconium phosphate, that may be used as antibacterial substances but there is no reason this teaching would lead one of ordinary skill in the art to combine the teaching with Niira and Kanari to obtain a composition having oxides of silver ions, zinc oxide and zirconium phosphate, especially in the amounts recited in the claim.

Applicant respectfully submits that the combination of elements as set forth in independent claim 1 is not disclosed or made obvious by the prior art of record, including Niira, Kanari and Myers, for the reasons explained above. Accordingly, reconsideration and withdrawal of these rejections are respectfully requested.

With regard to dependent claims 2, 3, 8 and 9, Applicant submits that these claims depend, either directly or indirectly, from independent claim 1 which is allowable for the reasons set forth above, and therefore claims 2, 3, 8 and 9 are allowable. In addition, these claims recite further limitations which are not disclosed or made obvious by the applied prior art references. Reconsideration and allowance thereof are respectfully requested.

Claim 8 specifies that the antibiotic substance is in the form of pellets and claim 9 recites that the pellets are formed from powder. The advantages of pellets are disclosed in the specification on page 4, lines 7-11. The Examiner states that Niira discloses the use of pellets. However, column 4, lines 17-23 of Niira, relied upon by the Examiner, states that the antibiotic zeolites are pulverized to have an average particle size of not more than 6 microns, most preferably 0.5 to 2 microns. This fine powder cannot be considered pellets, as asserted by the Examiner.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

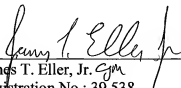
If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Chris McDonald, Registration No. 41,533, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Response is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 
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